UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,477	06/23/2005	Yoshinori Matsui	2005_0813A	2984

513   7590   08/19/2008
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EXAMINER
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ART UNIT	PAPER NUMBER
2131	

MAIL DATE	DELIVERY MODE
08/19/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 June 2005</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-22</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-22</u> is/are rejected.

7)☒ Claim(s) <u>1-22</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>23 June 2005</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☒ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>6/23/06 & 7/26/05</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

The instant application having Application No. 10/540477 filed on 6/23/2005 is

presented for examination by the examiner.

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an

application filed in Japan on 03/07/2003. It is noted, however, that applicant has not

filed a certified copy of the foreign application as required by 35 U.S.C. 119(b).

Drawings

Figures 1, 2, 3, and 4 should be designated by a legend such as --Prior Art--

because only that which is old is illustrated. See MPEP § 608.02(g). Corrected

drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action

to avoid abandonment of the application. The replacement sheet(s) should be labeled

"Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct

any portion of the drawing figures. If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office

action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 1-22 objected to because of the following informalities: in each of the

independent claims the limitation file reading unit reads to obtain a file which has a data

section including … image data, audio data, **and** text data [emphasis added]. This is in

conflict with the preamble which states that the data to be encrypted is at least one of

but not necessarily all types. Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
conditions and requirements of this title.

Claims 1-15, and 19-21 rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

As per claims 1-15, the claims refer to functional descriptive material. See MPEP

2106.01 [R-6].

2106.01 [R-6]   Computer-Related Nonstatutory Subject Matter

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works, and a compilation or mere arrangement of data.

Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)(discussing patentable weight of data structure limitations in the context of a statutory claim to a data structure stored on a computer readable medium that increases computer efficiency) and >In re< *Warmerdam*, 33 F.3d *>1354,< 1360-61, 31 USPQ2d *>1754,< 1759

As per claims 19-21, the claims refer to a computer program which does not recite the language required by the MPEP which states that a program must execute a computer to operate. The claim language in claims 19-21 is said to cause a computer to operate. Statutory language for claim 19 as an example could be, "An encrypting program executed in a computer which encrypts..." See MPEP 2106.01.

Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process and USPTO personnel should treat a claim for a computer program, without the computer-readable medium needed to realize the computer program's functionality, as nonstatutory functional descriptive material. When a computer program is claimed in a process where the computer is executing the computer program's instructions, USPTO personnel should treat the claim as a process claim. MPEP 2106.01

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the
United States before the invention thereof by the applicant for patent, or on an international application
by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this
title before the invention thereof by the applicant for patent.

Claims 1-22 are rejected under 35 U.S.C. 102(e) as being anticipated by USP

7,380120 to Garcia.

As per claims 1, 16, and 19, Garcia teaches encrypting (col. 4, lines 20-24) at

least one of encoded image data, audio data, and text data, said encrypting apparatus

comprising (col. 7, lines 13-14):

a file reading unit operable to obtain a file which has a data section including the

encoded image data, audio data, and text data and a header section including a header

of the data section (col. 8, lines 51-55);

an encrypting unit operable to encrypt at least one of the encoded image data, audio

data, and text data included in the data section of the file (column 8, line 54);

a header analyzing unit operable to analyze the header section of the file and to obtain

a value [security information] (col. 13, lines 56-60) described in a field that is included in

the header section to show an encoding method used for data to be encrypted by said

encrypting unit (col. 3, lines 61-64);

a header converting unit operable to convert the obtained value according to a

predetermined conversion rule [cipher] and to replace the value described in the field

with the converted value (col. 14, lines 32-36); and

a file outputting unit operable to output a file having a header section including a field in

which the value has been replaced and a data section including the encrypted data (Fig

4A, reference 418).

As per claims 6, 17, and 20 Garcia teaches decrypting encrypted data (col. 4,

lines 20-24), the encrypted data being at least one of encoded image data, audio data,

and text data, said decrypting apparatus comprising (col. 7, lines 13-14):

a file reading unit operable to obtain a file which has a data section including the

encoded image data, audio data, and text data and a header section including a header

of the data section(col. 8, lines 51-55);

a header analyzing unit operable to analyze the header section of the file and to obtain

value[security information] (col. 13, lines 56-60) described in a field that is included in

the header section to show an encoding method used for the encrypted data and

information regarding encryption (col. 3, lines 61-64);

a header converting unit operable to convert the obtained value according to a

predetermined conversion rule [cipher] and to replace the value described in the field

with the converted value (col. 14, lines 32-36);

a decrypting unit operable to decrypt the encrypted data out of the encoded image data,

audio data, and the text data included in the data section of the file (Fig 4C, reference

468);

and a file outputting unit operable to output a file having a header section including a

field in which the value has been replaced and a data section including the decrypted

data (Fig 4C, reference 470).

As per claims 11, 18, and 21 Garcia teaches decrypting and decoding encrypted

data for reproduction (col. 4, lines 20-24), the encrypted data being at least one of

encoded image data, audio data, and text data, said decrypting apparatus comprising

(col. 7, lines 13-14):

a file reading unit operable to obtain a file which has a data section including the

encoded image data, audio data, and text data and a header section including a header

of the data section(col. 8, lines 51-55);

a header analyzing unit operable to analyze the header section of the file and to obtain

value[security information] (col. 13, lines 56-60) described in a field that is included in

the header section to show an encoding method used for the encrypted data and

information regarding encryption (col. 3, lines 61-64);

a header converting unit operable to convert the obtained value according to a

predetermined conversion rule [cipher] and to replace the value described in the field

with the converted value (col. 14, lines 32-36);

a decrypting unit operable to decrypt the encrypted data out of the encoded image data,

audio data, and the text data included in the data section of the file (Fig 4C, reference

468);

a decoding unit [authoring tool] operable to determine the encoding method used for the data by reference to the field in which the value has been replaced and to decode the decrypted data (col. 8, lines 25-31).

As per claims 2, 7, and 12 Garcia teaches converting the obtained value through a bit inversion (col. 3, lines 61-64, col. 7, lines 52-55, and col. 19, lines 17-18). It is well known in the art that encrypting data inverts bits.

As per claims 3, 8, and 13 Garcia teaches changing a bit position in the obtained value at which the bit inversion is to be performed, according to an encrypting method used by said encrypting unit (col. 14, lines 32-49). Again it is will known that through encryption/decrypting bits change position.

As per claims 4, 9, and 14 Garcia teaches changing a bit inversion formula [cipher] to be used for the bit inversion, according to an encrypting method used by said encrypting unit (col. 15, lines 13-14 and col. 16, 9-12). Garcia teaches that the way a file is encrypted can defend on various security factors and different encrypting ciphers can be used base on such factors.

As per claims 5, 10, and 15 Garcia teaches the conversion rule is represented by a conversion table [table / database entries] in which the obtained value is recorded in association with the converted value (col. 3, lines 3-5 and Fig. 5B.2).

As per claim 22, Garcia teaches a computer-readable recording medium on which a file is recorded, said file including:

a data section which includes encrypted data (col. 11, lines 62-64), the encrypted data

being at least one of encoded image data, audio data, and text data (col. 7, lines 13-16);

and

a header section which includes a header of the data section, wherein the header

section includes a field showing an encoding method [cipher] used for the encrypted

data and information regarding encryption (col. 3, lines 53-64).

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

US Patent Application Publication US 2003/0037182 A1 discloses a fixed header

with associated file encrypted and encoded on a computer readable medium.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to MICHAEL R. VAUGHAN whose telephone number is

(571)270-7316. The examiner can normally be reached on Monday - Thursday, 7:30am

- 5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. R. V./
Examiner, Art Unit 2131

/Ayaz R. Sheikh/

Supervisory Patent Examiner, Art Unit 2131